NOTES ON SAPINDACEAE II - NEW SPECIES OF PAULLINIA FROM PERU

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Paullinia brentberlinei sp. novo

TYPE: Peru; Dept. of Amazonas; Quebrada Huampami, 10 km from its mouth at the Rio Cenepa; altitude 700 ft.; along riverbank, Nov. 23, 1972. Brent Berlin 336 (Holotype: MO 2331964; Isotypes US,USM; Paratypes Quebrada Huampami, forest along margin of stream, Kayap 189 (MO,USM); Quebrada Huampami, Rio Cenepa, forest, Kayap 818 (F,MO,NY))

Scandens, fruticosa, tomentosa; rami teres, leviter trisulcati; corpus lignosum simplex; folia 5-foliolato-pinnata; foliola elliptica vel ovato-elliptica, acuminata, basi acuta vel obtusa vel rotundata, 9.5-17 cm longa, 5.3-8 cm lata, remota-serrata, supra glabra, subtus tomentosa; thyrsi solitarii, axillares, 15-30 cm longi; pedicelli 4 mm longi; flores albi; sepala rotundata; petala obovata; squamae 5 mm longae, 3 mm latae, crista superior bilobata; capsulae 6.5-9.5 cm longae, 4-5 cm latae, stipitatae; testae 2, 2 cm longae.

Stout liana; densely short reddish-brown, granular-tomentose on most younger parts (the trichomes completely obscuring the surface); stems subterete, to 1 cm diam on fruiting specimens, the periderm shiny when cleared of pubescence; younger stems shallowly 3-sulcate; wood simple. Leaves pinnately 5-foliolate, 24-30 cm long; petioles subterete, 5-11 cm long; rachises 2.5-3.5 cm long; petioles and rachises narrowly canaliculate, densely tomentose like the stems; petiolules 4-10 mm long, narrowly canaliculate, densely tomentose; leaflets elliptic to ovate-elliptic, acuminate at apex, broadly acute to obtuse or rounded at base, 9.5-17 cm long, 5.3-8 cm wide, glabrous or nearly so on upper surface except in vicinity of midrib and proximal parts of lateral veins, densely granular-tomentose on lower surface, the trichomes sometimes individually distinct, mostly like a dense layer of sand obscuring the surface; midrib sunken above with a slender medial rib, prominently raised beneath; major lateral veins raised on both sides, the tertiary veins raised on lower surface, almost straight, extending between the major lateral veins; margins entire except glandular-serrulate near apex. Inflorescences axillary,

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solitary, the thyrses in a slender raceme 15-30 cm long; rachis weakly several-sulcate on dried specimens, densely tomentose; flowers white, ca 1 cm long; pedicels ca 4 mm long, articulate in the lower third; sepals ± orbicular, concave, ca 3 mm long; petals obovoid, ca 7 mm long and 4 mm wide, rounded at apex, glabrous, somewhat thickened medially near the base, the scales 5 mm long, 3 mm wide, glabrous outside, sparsely villous on inner surface except near apex, the crest bilobed, ca 1.5 mm long, the lobes narrowly obovoid, flattened, the deflexed appendage ca 2.5 mm long and 1.2 mm wide, densely villous throughout; anterior disk glands triangular, glabrous on outer surface, puberulent to villous on inner surface, ca 1.3 mm long; staminate flowers with filaments to 9 mm long, flattened, villous in lower half; pistillode minute; bisexual flowers with stamens to 5 mm long, villous throughout, the anthers ellipsoid, ca 0.9 mm long and 0.6 mm wide, the pollen white; ovary ca 1 mm long, 3-sided, densely villous; stigmas sessile. Fruits yellowish-red, ovoid-ellipsoid to oblanceolate-ellipsoid, stipitate, 6.5-9.5 cm long, 4-5 cm wide, acute to acuminate at apex, attenuate at base with a stipe ca 1.7 cm long, ca 5 mm wide, glabrous at maturity, splitting regularly into 3 parts, the valves woody, ca 1 cm thick, breaking free at apex of stipe; seeds 2, ca 2.5 cm long, ± ellipsoid, shiny, dark reddish-brown (at least when dry); aril white, covering most of the sides to distal 4/5 of seed, the margins thin, weakly lacerate on drying.

The species develops flower buds as early as November and flowers in January. Mature fruits have been collected in late May though it is doubtful that the fruits resulted from a January flowering since immature fruits have also been collected in November and January.

According to Brent Berlin (personal communication), the white sap is used for treatment of mouth sores by the Aguaruna Indians in Peru.

Paullinia brentberlinei is named for its collector, anthropologist Brent Berlin. It is known only from the Department of Amazonas in Peru. The species does not appear to be closely related to any other Paullinia. It can be distinguished by its densely tomentose parts and fruits which are the largest of any known species of Paullinia.